

What is claimed is:

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1 1. A method of evaporating thin film used in organic  
2 electro-luminescent display, comprising steps of:  
3 providing a display substrate;  
4 providing a mask having a plurality of openings and placed  
5 below the display substrate;  
6 providing a plane evaporation source placed below the mask,  
7 wherein the plane evaporation source has a plurality of  
8 evaporating material cells which are respectively aligned to  
9 the openings of the mask; and  
10 evaporating the evaporating material cells to deposit a  
11 plurality of thin films on predetermined regions of the  
12 display substrate.

1 2. The method according to claim 1, wherein the  
2 evaporating material cell is of organic electro-luminescent  
3 materials.

1 3. The method according to claim 1, wherein the formation  
2 of the plane evaporation source comprises steps of:  
3 providing a metal plate;  
4 providing at least one kind of evaporation source placed  
5 below the metal plate; and  
6 evaporating the evaporation source to form the  
7 evaporating material cells on the metal plate.

1 4. The method according to claim 3, wherein the formation  
2 of the plane evaporation source further comprises a step of  
3 providing a mask which has a plurality of openings and is

4 disposed between the metal plate and the evaporation source.

1 5. The method according to claim 3, wherein a plurality  
2 of types of evaporation sources are provided below the metal  
3 plate.

1 6. The method according to claim 3, wherein the metal plate  
2 is rotated during evaporation.

1 7. The method according to claim 3, wherein the back side  
2 of the metal plate comprises a plurality of supporting ribs.

1 8. A method of evaporating thin film used in organic  
2 electro-luminescent display, comprising steps of:

3 providing a display substrate;

4 providing a mask having a plurality of openings and placed  
5 below the display substrate;

6 providing a first plane evaporation source placed below  
7 the mask, wherein the first plane evaporation source has a  
8 metal net and a plurality of first evaporating material cells  
9 which are respectively aligned to the openings of the mask;

10 providing a second plane evaporation source placed below  
11 the first plane evaporation source, wherein the second plane  
12 evaporation source has a metal plate and a plurality of second  
13 evaporating material cells which are respectively aligned to  
14 the openings of the mask; and

15 evaporating the first evaporating material cells and the  
16 second evaporating material cells to deposit a plurality of  
17 thin films on predetermined regions of the display substrate.

1        9.The method according to claim 8, wherein the first  
2        evaporating material cell and the second evaporating material  
3        cell are of organic electro-luminescent materials.

1        10. The method according to claim 8, wherein the formation  
2        of the first plane evaporation source comprises steps of:  
3        providing the metal net;  
4        providing a first mask which has a plurality of first  
5        openings and is placed below the metal net;  
6        providing at least one kind of first evaporation source  
7        which is placed below the first mask; and  
8        evaporating the first evaporation source to form the first  
9        evaporating material cells on the metal net.

1        11. The method according to claim 10, wherein the metal  
2        net is rotated during evaporation.

1        12. The method according to claim 10, wherein the back side  
2        of the metal net comprises a plurality of supporting ribs.

1        13. The method according to claim 8, wherein the formation  
2        of the second plane evaporation source comprises steps of:  
3        providing the metal plate;  
4        providing a second mask which has a plurality of first  
5        openings and is placed below the metal plate;  
6        providing at least one kind of second evaporation source  
7        which is placed below the second mask; and  
8        evaporating the second evaporation source to form the  
9        second evaporating material cells on the metal plate.

1        14. The method according to claim 13, wherein the metal  
2 plate is rotated during evaporation.

1        15. The method according to claim 13, wherein the back side  
2 of the metal plate comprises a plurality of supporting ribs.